CLAIMS

1. A method for estimating a signal to interference
ratio (SIR) of a signal transmitted from a first unit and
to a remotely located second unit in a Wideband Code
Division Multiple Access (WCDMA) wireless communication
system, said signal being transmitted through an air
interface and comprising pilot and data symbols,
characterised by the steps of
        verifying (5.40) a transmitted Transmit Power Control
(TPC) command, and
        giving a SIR estimation (5.50) depending on the
result of said TPC verification (5.40).

2. A method according to claim 1, further
characterised in that said TPC verification (5.40) step
comprises the step of
        weighing said pilot and data symbols.

3. A method according to claim 1, further
characterised by encoding said data symbols using space-
time transit diversity (STTD).

4. A method according to claim 1, further
characterised in that interference is estimated from said
pilot symbols (5.20).

5. A method according to claim 4, further
characterised in that the estimated interference is
filtered.

6. A method according to claim 1, **characterised** in
that the first unit is a base station and the second unit
is a mobile unit.

7. A method according to claim 1, **characterised in** that the first unit is a mobile unit and the second unit is a base station.

5   8. A device (100) for estimating a signal to interference ratio (SIR) of a signal transmitted from a first unit and to a remotely located second unit in a Wideband Code Division Multiple Access (WCDMA) wireless communication system, said signal being transmitted through
10   an air interface, **characterised** in that said device comprises
        a means for Transmit Power Control (TPC) verification (40) having an output signal,
        a means for SIR estimation (50), and that
15   the SIR estimation depends on said output of said TPC verification unit.

        9. A device (100) according to claim 8, further **characterised** in that said TPC verification unit weighs
20   said pilot and data symbols.

        10. A device (100) according to claim 8, further **characterised** in that said data symbols are encoded using space-time transit diversity (STTD).
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        11. A device (100) according to claim 8, further **characterised** by a means for estimating interference from said pilot symbols.

30   12. A device (100) according to claim 11, further **characterised** by a filter for filtering said estimated interference.

13. A device (100) according to claim 8, further **characterised** in that the first unit is a base station and the second unit is a mobile unit.

5   14. A device (100) according to claim 8, further **characterised** in that the first unit is a mobile unit and the second unit is a base station.

15. A computer readable medium having a plurality of
10   computer-executable instructions for performing the method according to claim 1, **characterised** by
        a program module for TPC verification giving instructions to a computer, and
        a program module for SIR estimation giving
15   instructions to a computer, depending on the Transmit Power Control (TPC) verification .